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DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, DC 20350-2000

IN REPLY REFER TO

OPNAVINST 5513.14
OP-09N
10 March 1988

OPNAV INSTRUCTION 5513.14

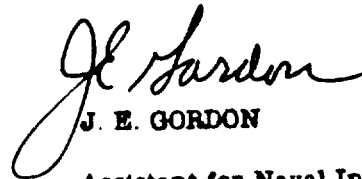
Subj: DEPARTMENT OF THE NAVY (DON) SECURITY CLASSIFICATION
GUIDANCE FOR SPACE PROGRAMS

Ref: (a) OPNAVINST 5513.1C

Encl: (1) Listing of guidance for Space Programs
(2) Space-based Radar (SBR) guide
(3) Navy Remote Ocean Sensing System (NROSS) guide

1. Purpose. To supplement reference (a). Enclosure (1) is a new and current index listing of subject guidance.

2. Action. Under reference (a), Department of the Navy commands will ensure that enclosures (2) and (3) serve as the basis for security classification of those space programs listed in enclosure (1).


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Assistant for Naval Investigative Matters
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LISTING OF GUIDANCE FOR SPACE PROGRAMS

<u>ENCL</u>	<u>CLASS</u>	<u>ID</u>	<u>SUBJECT</u>
2	U	14-02	Space-based Radar (SBR)
3	U	14-03	Navy Remote Ocean Sensing System (NROSS)

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Enclosure (1)

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01. IDENTIFYING DATA

ID: 14-02
CL: U
SU: SPACED-BASED RADAR (SBR)
OC: OPNAV (OP-09N); DTIC-C
CA: HQ SPACE DIVISION/SPI (AFSC)
OD: 86-11-17
CD: 87-10-15
RD: 89-10-15

02. THREAT/BACKGROUND: This guide provides the basis for determining classification of planning and concept material associated with a space-based radar (SBR). Currently, this guide is not directed at any specific program or project but is intended to apply to planning of all SBR-related projects.

03. MISSION: The objective of a SBR is to provide wide area atmospheric, sea and ground surveillance from the vantage of space.

04. FINANCIAL:

A. Funding to date for the entire program: U
B. Projected costs, funding and contract values: U (provided IOC cannot be inferred)

05. MILESTONES:

A. General planning, programming or program status: U
B. Detailed planning, programming or program status: S-OADR (Originating agency's determination required)
C. Program objectives: U

06. DESIGN PERFORMANCE AND FUNCTIONAL CHARACTERISTICS:

A. General
(1) Program name: U
(2) Contract, project or model numbers: U
(3) Identity, title or brief description of conceptual systems: U

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B. System Design

(1) Capability, availability, deficiencies and mission utilization of planned operational systems: S-OADR (discussion of generic classes of missions of interest (i.e., missile surveillance, strategic aircraft surveillance, space surveillance and ocean surveillance) will be unclassified when disassociated from a particular system concept and from information which could indicate actual or intended mission sets of an operational space radar)

(2) System development parameters (e.g., numbers of space vehicles, general orbital or trajectory parameters) up to the time of operational deployment of the complete system network: S-OADR (Declassify general orbital parameters and number of space vehicles when system is declared fully operational, and only in context where mission set and extent of capability are not discussed)

(3) Quantitative aspects of the level and type of survivability and vulnerability: TS-OADR (Secret for general or generic)

(4) Location and computational characteristics of SBR central data processor: S-OADR

(5) Method of transmitting SBR data from satellite to satellite and from satellite to user including downlink frequencies: S-OADR

(6) Information which can be used to deduce probability of detection for a specific target/scenario: S-OADR

(7) System operation/performance data revealing target detection threshold and number of simultaneous target tracks: S-OADR

(8) Initial operational capability (IOC), or full operational capability (FOC) dates (i.e., day, month, quarter, or year): S-OADR

(9) Quantitative descriptions of projected FOC's, including size, type, system mix or deployment: S-OADR

C. Sensors:

(1) Performance parameters

(a) Sensitivity, noise, temperature: S-OADR

(b) Range resolution, with or without target size: S-OADR

(c) Quantitative aspects of frequency and base frequency bandwidth either transmitted or received: TS-OADR (Secret for general or generic)

(d) System reliability: S-OADR (component reliability is unclassified)

(e) Operating life: S-OADR

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- (f) Operational availability: S-OADR
 - (g) The precise effective radiated power: TS-OADR
(Secret for general or generic)
 - (h) The precise antenna pattern, mainlobe and sidelobe amplitudes: TS-OADR (Secret for general or generic)
 - (i) Probability of detection (PD): S-OADR
 - (j) Minimum and maximum target detectable radial speed: S-OADR
 - (k) Target accuracy (relative and absolute): S-OADR
 - (l) Target resolution: S-OADR
 - (m) Radar sensitivity/noise figure: S-OADR
 - (n) Information divulging minimum detectable cross section: S-OADR
 - (o) Radar coverage achievable and in effect: S-OADR
 - (p) Quantitative aspects of system vulnerability to and nature of effective countermeasures: TS-OADR (Secret if general or generic)
 - (q) Quantitative aspects of counter-countermeasure techniques used to protect SBR performance: TS-OADR (Secret if general or generic)
 - (r) Quantitative levels of susceptibility to nuclear events, natural or enhanced environments: TS-OADR (Secret if general or generic)
 - (s) Measured target signatures and characteristics: S-OADR
 - (t) Target discrimination techniques or capabilities: S-OADR
 - (u) Calibrated background ground and sea clutter data: S-OADR (particular terrain reflectivity coefficients will be unclassified unless associated with a radar footprint geometry specification which characterizes the space radar design. In the event that such reflectivity coefficients are associated with ground footprint specification, the information shall be Secret)
 - (v) Ground test equipment design and functions: U
(Unless it reveals details classified by other paragraphs in this section)
 - (w) Operational command functions: S-CADR (Satellite housekeeping commands are: U)
 - (x) Detector sampling rate: S-OADR
 - (y) Telemetry data format: S-OADR
- (2) Testing and flight programs (DATA NOTE: Raw data taken as test data, provided without engineering units, data printouts without format, and data specifications are unclassified. Calculated and measured target signatures are classified if

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associated with target identification (ID) or class, but are otherwise unclassified. Association of experimental sensor engineering specifications with measured target signatures and/or target classification (type) will be S-OADR)

- (a) Environmental testing: U
- (b) Performance testing: S-CADR
- (c) Sensor calibration data: S-OADR
- (d) Flight telemetry data: S-OADR
- (e) Encrypted data: S-OADR
- (f) Encryption codes: S-OADR

(3) Data processing:

- (a) Signal processing and moving target indication (MTI) techniques: S-OADR
- (b) Discrimination, target detection, and filtering algorithms: S-OADR
- (c) Computer software: S-OADR

D. Space vehicle

(1) Spacecraft

- (a) Design drawings and specifications: S-CADR (U if it does not reveal system performance or operational capability)
- (b) Thermal control subsystems: U (Unless it reveals details classified by other paragraphs of this section)
- (c) Power subsystems: U (see (1)(b) above)
- (d) Attitude determination subsystem: U (see (1)(b) above)
- (e) Attitude control subsystem: U (see (1)(b) above)
- (f) Telemetry, tracking and control subsystem: U (see (1)(b) above)
- (g) Structural subsystem: U (see (1)(b) above)
- (h) Reliability: U (see (1)(b) above)
- (i) Launch support requirements: U (see (1)(b) above)
- (j) Command functions: S-OADR (U for non-operational command functions)

(2) Testing

- (a) Spacecraft test specifications: S-OADR
- (b) Spacecraft subsystem test results: S-OADR
- (c) Spacecraft system test results: S-OADR
- (d) Test sequence: S-OADR

07. OPERATIONAL AND TACTICAL:

A. Flight operations: (Flight operations information in all subcategories shall be unclassified for experimental and research and development (R&D) flights, except where such information is associated with projection to operational system characteristics

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or design decisions)

- (1) Prelaunch planning: C-OADR
- (2) Prelaunch events: C-OADR
- (3) Trajectories: S-OADR
- (4) Orbital parameters: S-OADR
- (5) Launch area designations: U
- (6) Launch schedule and date: S-OADR
- (7) Launch sequence: S-OADR
- (8) Orbital or operational life (planned or specified):

S-OADR

- (9) Mission operations sequence: S-CADR
- (10) Mission times: S-OADR
- (11) Spacecraft health data: S-OADR
- (12) Operational commanding: S-OADR
- (13) Quantitative aspects of employed survivability techniques: TS-OADR (Secret if general or generic)

08. HARDWARE:

- A. Level and type of survivability hardware: S-OADR
- B. Recorder assembly telemetry hardware: U
- C. Data processing hardware/design specifications: S-CADR

09. OTHER:

- A. A complete list of contractors/subcontractors: U
- B. The relationship of contractors/subcontractors to each other and to government agencies: U
- C. Proposed public releases or release to foreign governments and their representatives: refer to applicable regulations, directives and instructions.

10. BRIEF JUSTIFICATION: Not applicable

11. SECONDARY DISTRIBUTION: DOD and DOD contractors only

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01. IDENTIFYING DATA

ID: 14-03
CL: U
SU: NAVY REMOTE OCEAN SENSING SYSTEM (NROSS)
OC: OPNAV (OP-943D); DTIC-A
CA: OPNAV (OP-943)
OD: 88-01-15
CD: 88-01-15
RD: 90-01-15

02. THREAT/BACKGROUND: A complete threat assessment is included in NISC publication TA #008-87, March 1987. Existing environmental satellites provide limited oceanographic data in cloud covered areas of operational importance. The Navy Remote Ocean Sensing System (NROSS) will provide global all-weather coverage in a secure, real-time mode to tactical units.

03. MISSION: NROSS is a satellite and ground system which provides operational oceanographic information to support military and civil users. Oceanographic measurements include:

- A. Ice coverage and age
- B. Ocean fronts and eddies
- C. Surface wind speed and direction
- D. Precipitation and atmospheric moisture
- E. Sea surface temperature

04. FINANCIAL:

- A. Budget Programs:
 - (1) Current year: U
 - (2) Future years: FOUO (Releasable when submitted to Congress)

05. MILESTONES:

- A. Identification of contractors and their suppliers: U
- B. Production schedules and major milestones: U
- C. Launch data by month and year: U

06. DESIGN PERFORMANCE AND FUNCTIONAL CHARACTERISTICS:

- A. Satellite design and performance characteristics: U

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Enclosure (3)

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- B. Frequencies: U
- C. Launch vehicle design and system performance: U
- D. Ground system design and operating parameters: U
- E. Number of sensors: U
- F. Vulnerabilities: Refer to OPNAVINST 5513.6B-13
- G. The fact that the program or a portion thereof will be hardened: Refer to OPNAVINST 5513.6B-13.

07. OPERATIONAL AND TACTICAL:

- A. Fact that NROSS may have various military applications: U; specific applications: S-OADR
- B. ASW mission, general: C-OADR; specific: S-OADR
- C. SSBN support: S-OADR
- D. Altimeter data, encrypted: U; decrypted: S-OADR (derived data such as wave heights, wind speeds and dynamic oceanographic residuals are unclassified)

08. HARDWARE:

- A. Satellite system: U
- B. Launch vehicle equipment: U
- C. COMSEC equipment: S-OADR (crypto). Refer to the following COMSEC publications: NACSI-4003(S), CMS 4K(C), and NTP 7(C) (NOTAL)

09. OTHER: Not applicable

10. BRIEF JUSTIFICATION: The oceanographic data measured by this system is unclassified except for the altimetry data which contains information on the earth's geoid. However, the revelation of the specific military applications of the oceanographic data would allow a foreign nation to develop or improve similar tactics or permit development of effective countermeasures.

11. SECONDARY DISTRIBUTION: U. S. Government and its contractors